

**Homeland Defense Technology Agreement,
Request for Project Proposals**

Number: W15QKN-12-9-1006-RPP 2012-1

Issued by:

Army Contracting Command – New Jersey
Emerging Technologies Center
ACC-NJ-ET, Building 10b
Picatinny Arsenal, NJ 07806-5000

To the
SOSSEC, INC
43 Sandown Road
Danville, NH 03819

For the
System of Systems in Security Consortium

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Part I. EXECUTIVE SUMMARY

The US Army, Army Contracting Command – New Jersey, Picatinny Arsenal, NJ 07806-5000 proposes to enter into a Section 845 Prototype Other Transaction (OT) for the consolidated Homeland Defense effort with the System of Systems in Security Consortium through its agent SOSSEC, Inc. The total estimated amount of the effort is \$100,000,000 for a period of three (3) years.

The U.S. Army desires to extend the Homeland Defense (HLD), Homeland Security (HLS), and Force Protection Enterprise to include its industry, academic and non-profit partners through the establishment of a single, U.S. only consortium. The Armaments Research, Development and Engineering Center (ARDEC), and Homeland Defense and Technologies Center (HDTC) has stated its desire to see U.S. industry, academia and other U.S. based entities establish a single consortium to function as the focal point for execution of consolidated HLD and HLS objectives under Section 845 Prototype OT. As a result, a single Consortium is emerging, System of Systems Security in Consortium. The System of Systems in Security Consortium is a Sponsor(s) – oriented non-incorporated enterprise, whose participants are from industry, academia, and Sponsor(s) formed under the membership agreement. Through the System of Systems in Security Consortium, the Government expects to increase advances accelerating the development and maturation of joint military and civilian capabilities, providing dual use (military and civilian) technologies; enhancing military and civilian training and preparedness; improving interagency information sharing; and fostering trusted relationships in compliance with the National Incident Management System (NIMS), all the while preparing to transition these technologies into potential programs of record.

The Homeland Defense OTA, number W15QKN-12-9-1006, was signed between the Government and the SOSSEC, Inc. (Consortium Administrative Organization or CAO) on September 7, 2012. The terms and conditions agreed to under this OTA will serve as the terms and conditions for future project agreements and modifications to the OTA. The USG anticipates multiple Firm Fixed Price agreements under the Research Areas.

Only those members of the System of Systems in Technology Consortium who have executed (signed) the Consortium Member Agreement (CMA) prior to the proposal due date and are members in good standing will be eligible to have their submitted proposals evaluated. An offeror that submits a proposal prior to their signature of said CMA does so solely at his own risk. The USG accepts no responsibility for any costs associated with any proposal submission.

As described in Article I of the basic OTA, the Government will issue Requests for Project Proposals (RPPs) to the [CAO](#) as agent of the System of Systems in Security Consortium. The [CAO](#) will in turn, issue a similar request to the System of Systems in Security Consortium members (statement of objectives, etc.) including the evaluation factors upon which the Government will evaluate each request and select a proposal(s) for performance. The individual Consortium Members will then decide whether to submit proposals in response to such calls and prepare their individual proposal(s) or will individually establish a team comprised of Consortium Members to prepare a team proposal(s). These Consortium Member proposals will be submitted to the CAO for review for completeness and format compliance under the RPP.

The CAO will transmit the Consortium Member proposals to the Government. As part of this submission, the CAO will provide a summary of the project proposals submitted, inclusive of detailing significant participation of Nontraditional Defense Contractors (NDCs), and verify in the summary that all submitted project proposals are compliant with statutes for significant NDC participation. The Government shall be solely responsible for evaluation and selection of proposals for project funding from among the proposals submitted.

Projects will be selected for funding by the Government to the System of Systems in Security Consortium based on the merits of the proposals received in response to the Government announcement and the requirements for each project, as a best value assessment of all proposals. The estimated funding available for awards under this RPP is approximately \$15,000,000. Multiple awards under multiple research areas are anticipated.

Due to limited funding, the Government reserves the right to limit project agreements funded under any research area and only proposals considered to be of superior quality will be funded. The Government reserves the right to select for funding any, all, part, or none of the proposals received. Selection will be dependent upon the amount of Government funds received. The Government can refuse to fund project agreements or renegotiate proposals if on the aggregate there is not sufficient Nontraditional Defense Contractor participation or (in the alternative) cost sharing from a traditional contractor.

Project agreements will be funded under the basic Section 845 Other Transaction Agreement (W15QKN-12-9-1006). This instrument is not subject to the Federal Acquisition Regulations (FAR).

Project awards involving classified material will be subject to terms found in Article XVIII: OPSEC & Security of the Base Agreement. Any additional terms or directions regarding classified material will be issued as part of the Technical Direction Letter and will be required as part of the Agreement between the CAO and the project awardee(s).

There is no anticipated Government furnished property involved with the Request for Project Proposals and any resulting awards.

Part II. RESEARCH AREAS

The principle purpose of the proposed OT is to attract new technologies and spur development of basic and advanced prototypes critical to near and long term HLD and HLS objectives issued by the U.S. Army and HLS and directly relevant to weapons and weapons systems.

This Request for Project Proposals is issued to solicit proposals for research and development of the following major research areas in Homeland Defense technologies: (1.1) Critical Infrastructure, Key Resources, and Force Protection Technologies, (2.1) Command and Control Technology Development, (3.1) Platform and Integration Testing, and (4.1) Sensor Development and Platform Integration. Each research area is defined below.

1.1 CRITICAL INFRASTRUCTURE, KEY RESOURCES, AND FORCE PROTECTION TECHNOLOGIES

Perform specific research and prototype processes that develop and demonstrate protection technologies that directly advance the application of HLD missions. This includes research and development in such areas as Border Security, Perimeter Security, Port Security, IED Detection and Neutralization, Robotics, Sensors, and Surveillance and Warning. Examples of Critical Infrastructure, Key Resources, and Force Protection Technologies include:

- *Security Improvements*: technologies advancing the state of the art in Border Security, Perimeter Security, and Port Security. This includes improvements to human and organizational interoperability across multi-agency, multi-jurisdictional environments for responsible federal, state, and local security organizations.
- *IED Detection and Neutralization*
- *Robotic and Remote Technologies*
- *Sensor, Surveillance, and Warning Systems*: including development and adaptation of optical design technologies to accomplish the Government's HLD mission, extending critical protection to field responders, civil authorities, and the public.

Specific research areas in Critical Infrastructure, Key Resources, and Force Protection Technologies include the following objectives:

1.1.1 Engineering and Base Operations Support System (EBOSS)

Summary: The Government will utilize Enterprise Resource Planning systems for the transformation of legacy defense software technologies in support of Army readiness (such as the CH-47D & AH 64D aircraft) and critical Army infrastructure business systems supporting the Army and the future landscape. This pilot program will perform a continuous assessment of application services and data integration requirements to identify redundancies, duplications, and overlaps that are unnecessary and ineffective. Our objective will be focused on providing the required business functionality to support E2E business processes. The benefits of conducting a pilot will provide a better understanding of the capabilities of prototype and COTS ERP systems to transform Army Reserve's legacy system and utilize an ERP based implementation.

Background: In FY 06, the Army Reserve leadership decided to consolidate the Office of the Assistant Chief of Staff for Installation Management-Army Reserve (ACSIM-AR) and the Installation Management Agency-Army Reserve (IMA-AR), into a single entity, the Army Reserve Installation Directorate (ARID) reporting directly to the Assistant Chief of Staff Installation Management (ACSIM). Base Operations (BASOPs) support provided by

the 10 Regional Readiness Commands (RRCs) was consolidated under four Regional Support Commands (RSCs), outside Continental United States (OCONUS) Commands and the United States Army Reserve Command (USARC) Installations. These decisions were directed at providing support for numerous geographically distributed Army Reserve units through increased efficiency, better requirements definition, process and service standardization. The Weapons & Software Engineering Center (WSEC), Business Transformation and E-Systems (BTES) Directorate, of the Armaments Research Engineering Center (ARDEC) investigates and develops Enterprise Resource Planning systems for the transformation of legacy defense software technologies in support of Army readiness and critical Army infrastructure business systems supporting the Army ERP Shared Services Center (SSC). BTES and the SSC will evaluate the legacy system, Engineering and Base Operations Support System (EBOSS) infrastructure and suite of applications. Adoption of ERP system processes, data standards, data objects, and data architectures will be used as both a framework and foundation for achieving work program goals while minimizing application and data investments. This includes leveraging cross-application capability delivery to support improvements in operations and economic returns over time.

Discussion:

For this prototype, BTES and the Army SSC will utilize Enterprise Resource Planning systems to model the needs from the legacy system, therefore mitigating any unnecessary risks to the transformation process. The system is an enterprise resource planning pilot using an SAP based landscape which will reduce the legacy systems support to training facilities where soldiers are given weapons training; support to maintenance shops where vehicles, aircrafts, and weapon systems such as the CH-47D & AH-64D support the Army Reserves logistics and soldier readiness. The EBOSS system has limited visibility at Equipment Concentration Sites where combat vehicles and weapon systems are stored and maintained tracking the full lifecycle from procurement to decommissioning. This pilot will also support the army's plan to implement an ERP system which currently includes G-army, LMP and GFEBS all supported on an SAP landscape increasing EBOSS's connectivity to the army's leading ERPs. It will be necessary to analyze the legacy system to map the functionalities and capabilities of the application. The prototype should be developed according to the Army Enterprise Architecture standards and fit in the framework of COTS ERP systems. It will be necessary for BTES and Army SSC SMEs to study the business processes associated with the legacy system and mission area. The findings and determinations made by the SMEs will identify the improvements and efficiencies that will aid in the development of the prototype.

2.1 COMMAND AND CONTROL TECHNOLOGY DEVELOPMENT

Efforts to hasten the application of new Tactics, Techniques and Procedures (TTPs) and technologies that develop and facilitate integration of various command and Control technologies within the DOD, HLD, and Force Protection mission domain. This includes identification and transition of prototypes in Architectural & Engineering (including construction management), C2/C3/C4i Technology Development and Prototyping, Systems Integration, Systems Interoperability, Emergency Response, Smart Building and Automation Systems, and Communications.

Perform specific research and prototype processes that develop and demonstrate protection technologies that directly advance the application of these technologies for the application on ground and air mobile platforms and support systems. This includes research and development in such areas as data links, targeting and communication systems, digitally aided close air support systems, global stores management and communications systems, sensors, and Surveillance and Warning. Examples of these applied to critical air platform technologies include:

- System or Platform Improvements: Systems development and engineering for all ARC MDS platforms and subsystems for directed-energy weapons, EO/IR Targeting Pods, sensor hardening, laser hazards, laser eye protection and laser/directed-energy systems for use in an environment of laser guided weapons and directed energy weapons deployment Data Link Development and Integration To support the mission by providing high bandwidth, invulnerable data linkages between and among other aircraft and ground stations.
- Architectural/Engineering Systems, including Development of Automated Systems: technologies advancing Architectural & Engineering systems, including construction management, technologies developing, and automation systems.

Specific research areas in Protecting, Analyzing and Sharing Information include the following objectives:

2.1.1 Cyber Security Research and Analysis Project

Summary: The Government seeks proposals for establishing a set of core solutions aimed at increasing the survivability, effectiveness, and efficiency of cyber weapons systems and command and control solutions employed by the US Army Information Technology Agency (ITA). The solutions should range from technology pilots, analyses and assessments, to initial operational capabilities within the agency. The solutions must address defensive cyber protection, offensive cyber warfare, military command and control operations, continuity of operations for mission critical command and control solutions, alignment of technological solutions against command and control requirements, interoperability of services, and workforce skills relative to the command and control mission. The solutions should support early achievement of initial operational capabilities and support an expanding user community.

Background: In March 1995 Department of Defense (DoD) Directive Number 8220.01 was signed by the Deputy Secretary of Defense creating single agency manager (SAM) for the Pentagon. This Directive assigned the Secretary of the Army as the single agency manager and centralized the information technology services of the Pentagon reservation under a single IT service provider. The single agency manager is now known as the Information Technology Agency (ITA).

ITA's mission is to provide a highly survivable, robust, and resilient set of mission services to the Pentagon and Pentagon tenants, including mission critical command and control solutions to the headquarter elements of the Department of Defense. During a national emergency, Pentagon tenants may be required to relocate to alternate locations while carrying on the critical command and control mission of the Pentagon. ITA requires secure, scalable, robust, computing solutions to provide mobility, continuity of operations, and continuity of government to the Pentagon tenants.

In support of our mission, ITA has initiated a set of strategic initiatives to become a customer-focused service provider, optimize our command and control solutions, and more effectively, operate, and maintain information technology services for the Pentagon tenants, various agencies and organizations in the National Capital Region (NCR), and the Intelligence Community.

ITA is comprised of 1200 Government, Military, and Contractors supporting approximately 13K desktops on NIPRNET, 6K desktops on SIPRNET, over 20K mobile devices, 9500 network devices, and 2500 servers located throughout the NCR.

Discussion: The Government seeks proposals for a multi-pronged approach to rapidly modernize our technology infrastructure for survivability, quickly assess existing services from a value perspective, standardize future solutions for better

interoperability, and align our workforce to our new command and control missions.

a) Remote Computing Demonstration

ITA requires a solution that will rapidly establish an operational pilot for remote computing capability for Pentagon tenants. The solution should virtualize the end-user desktop experience, provides a multi-tenant desktop hosting environment, and offer access to all applications, services, and capabilities users currently have on the desktop. Moreover, the solution should be hardened against cyber attacks, provide limited attack vectors, allow applications to be streamed on demand, allow capabilities to be provisioned via a self service portal, and allow full privilege and license management of applications. User files, profile information, and data should be logically separated from the desktop and be accessible from any end-point device (e.g., desktop, laptop, mobile, etc.).

The solution should support the early achievement of initial operational capability (IOC) and be designed around a multi-tenant, scalable, service oriented architecture facilitating spiral development and ease of evolution, expansion and refinement, with scalability to support an expanding user community, potentially including every tenant of the Pentagon.

b) Mission Requirements Analysis

ITA requires new mission requirements to be decomposed and mapped to our existing service portfolio to ensure we provide the most effective and efficient solutions possible. Mission requirements and customer requests must be analyzed and assessed to ensure we are providing our customers the best value and to ensure the complex mission critical command and control services are addressing the defined requirements.

The solution should rapidly provide a repeatable framework and methodology for analyzing, assessing, and capturing service requirements, delivery value, as well as demonstrate an initial operational capability of the framework.

The solution must ensure IT spend is aligned with organizational imperatives, goals, and objectives; identify IT cost and spend drivers; ensure the budget is allocated according to senior leadership requirements; ensure costs and spend are within industry accepted standards and norms; identify areas for improvement; drive modernization, innovation, efficiency, and effectiveness. The solution should identify meaningful metrics to track spend and cost that assist in cost reduction identification and implementation. The analysis and conclusions should be based on commercial best practices, market research, and trends within the DoD, Federal, and private sectors.

c) **Standard Technology Pilot**

To ensure continuity of operations, command and control, and mission critical services are robust, survivable, and available during national emergencies, ITA requires a solution that leads to an integrated command and control service framework based on open standards. The solution should articulate a clear “end state” environment for the services provided by ITA, establish a path forward for modernizing core services, and establish short, mid, and long term goals for creating an effective and efficient IT enterprise via standards. The solution should also provide clear and concise guidance on how disparate services and solutions can be easily integrated while ensuring interoperability between services, with our architecture, and with the larger environment.

d) **Workforce Assessment Pilot**

To ensure the ITA workforce is addressing the needs of the Pentagon command and control community, ITA requires a solution that continually and consistently assesses the culture and skills of our workforce, solicits feedback from the workforce, and assesses ITA’s achievement in meeting customer requirements and expectations. The solution should include a repeatable framework and methodology for analyzing, assessing, and capturing workforce skills, feedback, and concerns. The solution should routinely evaluate the effectiveness of ITA communications, propose changes to the communication channels and messaging, and serve as a sounding board for new initiatives, programs, and projects. The solution should leverage commercial best practices, market research, and trends within the DoD, Federal, and private sectors.

e) **Governance Pilot**

To ensure ITA is meeting the expectations of the customers and senior leaders within the Department of Defense, we require a solution for creating and piloting an effective and efficient governance framework within the Agency. The solution should clearly define the governance construct, establish business rules for utilizing the framework, and bring the solution to fruition via an initial operating capability. The solution must ensure effective participation in existing Pentagon governance activities, create a culture of compliance and transparency, and respond to customer requests in a timely manner while capturing organizational, program, and project risks. The initial operating capability should address human resource management; budget and financial management; requirements, architecture, and change management; information and mission security; risk management; and project oversight and management.

2.1.2 Predictive Structural Failure Analysis and Baseline Analysis

Summary: The A-10 Program Office at Hill A.F.B., Utah, has identified the engineering and analytical research tasks required to correct technical deficiencies and identify opportunities to improve safety, efficiency, and cost performance of the A-10 weapon system. The information which the government will make available for analysis may include: A-10 sustainment, maintenance, and logistics-related data (processes, policies, records, supply data, engineering, and repair records). The required support is to resolve multiple sustainment and supportability issues by performing systems analysis including analyzing processes and technical information pertinent to the sustainment, maintenance, and provisioning of the multiple systems on the A-10 Weapon System. The A-10 Program Office has struggled the past seven years with multiple discrete efforts trying to resolve the wing pylon and wing interface problems. It was determined that the only way to resolve the problems was to perform all of the tasks together because of the amount of data, processes, and government entities involved to resolve all of the problems. The analysis will include building a limited number of parts to test, verify and validate solutions.

Background: The Government seeks proposals for Predictive Structural Failure Analysis. The Contractor shall use its own method of identification of components for analysis, and from that analysis, predict accelerated realization of improvements in fleet availability and total ownership cost performance in comparison to traditional reliability and maintainability analysis programs. The Contractor's method or process shall address safety, availability, and cost elements set forth in the United States Air Force's (USAF's) Operational Safety, Suitability, and Effectiveness (OSS&E), AFS021, and Aircraft Availability Improvement Program (AAIP), and other DoD guidance.

Discussion: The Government seeks proposal for identifies the engineering and analytical research tasks required to correct technical deficiencies and identify opportunities to improve safety, efficiency, and cost performance of the A-10 weapon system. The information which the government will make available for analysis may include: A-10 sustainment, maintenance, and logistics-related data (processes, policies, records, supply data, engineering, and repair records). The contractor will resolve multiple sustainment and supportability issues by performing systems analysis including analyzing processes and technical information pertinent to the sustainment, maintenance, and provisioning of the multiple systems on the A-10 Weapon System

a) Structural Failure Predictive Analysis

The proposal shall include Predictive Analysis (PA) effort encompasses three main areas. First, structural failure predictive analysis implementations should be presented from the analysis performed during FY 12 (analysis included deficiencies with the Wing Pylons and Outer Wing Panels). Then, structural failure predictive analysis and implementations should be provided for the aircraft Flight Control Surfaces and the aircraft outer skin structures of the Aft Fuselage. The

Government excludes from primary analysis in this phase/PWS: Nose and Main Landing Gear system. Adjacent structures may be analyzed if determined necessary during evaluation of these areas. Secondly, Development Packets (DEV PACs) need to be produced to enact work at the depot level for PA implementations. Finally, the data and detailed methodology obtained from this and past year's PA efforts need to be transitioned to the A-10 SPO serial number tracking module (Teamcenter MRO) in order to maintain and manage the new data and processes.

b) Baseline Analysis

The proposal shall identify the configuration management (CM) and Engineering Data tasks required by the A-10 SPO to update the Product Lifecycle Management (PLM) systems (Weapon Systems Management Tool (WSMT) and Teamcenter MRO) with complete and accurate configuration data for the A-10 Aircraft including Precision Engagement, AAR-47 and other subsequent modifications. The intention of this portion of the work is to complete the Bill of Materials (BOM) updates to PLM for all previous configurations. The effort of documenting the current and near future configurations has already been completed. The results of these efforts will allow all engineering data (including bill of materials) used by the A-10 SPO to be under complete configuration control within the Teamcenter PLM database and workflow structures. Once completed, all existing and current engineering data can be accurately provided to contractors, based on its respective configuration.

3.1 PLATFORM AND INTEGRATION TESTING

Perform specific research and prototype processes that develop and demonstrate technologies that directly advance the application of these technologies to specific requirements of the mission areas. This includes research and development in such areas as data links, targeting and communication systems, digitally aided close air support systems, global stores management and communications systems, sensors, and Surveillance and Warning, Cockpit display and GUI technologies, and Aircraft structure enhancements.

Specific research areas in Technology Development, Evaluation, and Transition include the following objectives:

3.1.1 Assault Breaching Systems (ABS)

Summary: US Navy seeks proposal to develop and evaluate technology and methods against a variety of targets to determine the reliability of remote defeat measures against mine threats that will exist in the lanes to be trafficked from deployment vessels to the beach for any planned beach landing in a possible hostile environment.

Background: Currently DoD utilizes methods that require ground personnel to operate in the immediate vicinity of the threats posed by mines; this proposed technology, if proven reliable and effective, will remove the need to have soldier in the immediate vicinity to clear an adequate landing path to the beach from the sea. The overall purpose of this program is to increase the survivability of the Warfighter on the ground through the development of a remote means of prosecuting mines.

Discussion: This program intends to support PMS 495 efforts by conducting a series of effectiveness evaluations against currently employed mines. Material required to support these evaluations must be procured to execute this Assault Breaching Systems (ABS) requirement. ABS is capable of rapid detection and breaching (or location, marking and avoidance) of mines and obstacles in support of U.S. Marine Corps and U.S. Navy amphibious power projection operations. Receiving operational-level feedback is a critical step in ensuring that the appropriate new assault breaching systems are relevant when developed and delivered to the Fleet. Accordingly, contractor support is required for personnel who are familiar with all aspects of expeditionary warfare, amphibious warfare, and shallow water mine countermeasures. The ABS Mine and Obstacle Neutralization activity is focused on improving the capability to neutralize mines and obstacles from deep water through the beach exit zone. Efforts include the development of technologies for: stand-off breaching of mines and obstacles in the surf zone (SZ)/beach zone (BZ); minesweeping and jamming of sea mines; and Autonomous Underwater Vehicle (AUV) neutralization of sea mines.

3.1.2 Dismount Detection Radar (DDR) System

Summary: The Government seeks proposals that analyze and address the integration challenges and opportunities for the Dismount Detection Radar (DDR) System and to describe opportunities for maximizing the utility of Ground Moving Target Indicator (GMTI) data while balancing cost, risk and schedule.

Background: The Aerial Ground Surveillance Systems Division (HBG/CC), Hanscom Air Force Base is facing the challenges for maximizing the utility of GMTI data, specifically in the area of integrating the DDR System into the larger Battle Management (BM) and Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) enterprise.

Discussion: The analyses shall assist in defining and integrating architectures, managing baseline requirements, refining and documenting requirements, concept of operations (CONOPs) and TTPs, optimizing resources, managing risks and schedules, and driving affordability across the enterprise. The analyses shall be applied individually and/or in an integrated manner as required to examine as-built and to-be enterprise impacts and support program office planning and

budgeting activities. Specific areas of analysis to support the integration of the DDR System into the larger BM/C4ISR enterprise include:

- Reference architecture assessment and refinement
- Maximizing the utility of GMTI
 - Capability chain analysis (F2T2EA Kill Chain) by modeling and analyzing simulation runs in a repeatable documentable process
 - Integration and interoperability
 - CONOPs development
 - CONEMP satisfaction
 - Data fusion and how to integrate new data and signal sources into the larger BM/C4ISR enterprise
- Performance analysis of DDR integrated into the enterprise

3.1.3 Integration of Advanced Tactics Development and Innovative Training for Joint Terminal Attack Controllers (JTACs) for the Air Force Special Operations Command (AFSOC)

Summary: In an effort to better serve the Warfighter the US Military has an increased need of AFSOC Joint Terminal Attack Controller (JTAC) training and operationally representative testing of advanced Close Air Support tactics and methodologies. This task requires contractor owned aircraft and ground support for JTAC development and test of full-immersion video and Digitally Aided Close Air Support (DACAS).

Background: ARDEC, its Engineering and Enterprise Centers, as well as Competency Directorates, manage a diverse portfolio of projects and technologies. Projects range from technology innovation, integration, evaluation, and assessments through applications, prototype integration, test and evaluation activities, fielding and support across weapon and platform systems, software, training and logistics. Technologies include fire control, sensors, day/night battlespace awareness, homeland defense/security, automated testing, optics, laser-based offensive and defensive systems, and networked lethality systems. Planning, execution, management, reporting and collaboration across this vast portfolio demands that technical, managerial and administrative personnel have ready access to a large variety and volume of information including but not limited to technical, programmatic and financial data, software libraries, presentations and reports, audio and video files, technical manuals and drawings, engineering designs and candidates for technology insertion. At the present time there is a need for applying a suite of solutions to the Warfighter to increase their operational capabilities with JTAC advanced tactics development, testing and realistic training. Support is required to define, integrate, test, evaluate, train and execute the critical combat and Homeland Defense/Homeland Security mission requirements for US Armed Forces.

Discussion: AFSOC seeks proposals that that will rapidly establish prototype Close Air Support capabilities for Air Force JTAC personnel through integration, demonstration, test and evaluation, tactics development and testing. The tasks required include contractor owned aircraft simulating Air Force airborne major weapon systems. Ground support is required for JTAC development and test of full-immersion video and Digitally Aided Close Air Support (DACAS), including the control and release of operationally realistic weapons in a simulated combat environment.

The solution approach should support the early achievement of advanced operational capability and be designed around a scalable, service oriented architecture facilitating spiral development and ease of evolution, expansion and refinement, with scalability to support an expanding user community, potentially extending across the DoD enterprise.

3.1.4 A-10 Architecture, Integration and Support Equipment Support

Summary: The A-10 System Program Office (SPO) seeks proposal to define the engineering services, technical and requirements gap analysis required to accomplish integrated systems engineering. The previous analysis and ongoing discussions have determined gaps and technical deficiencies in A-10 aircraft allocated baseline including the architecture and a support equipment roadmap. This effort assesses and verifies technical data required to alleviate deficiencies as part of maintaining a DoDAF 2.0 compliant architecture and the A-10 allocated baseline. This is an overarching systems engineering approach to maximize the effectiveness of sustainment and modernization to increase weapon system capabilities, availability, and effectiveness. This will be accomplished by eliminating deficiencies in and updating the avionics architecture and Support Equipment Roadmaps for future project and to perform integrated systems engineering.

Background: ARDEC, its Engineering and Enterprise Centers, as well as Competency Directorates, manage a diverse portfolio of projects and technologies. Projects range from technology innovation, integration, evaluation, and assessments through applications, prototype integration, test and evaluation activates, fielding and support across weapon and platform systems, software, training and logistics. Technologies include fire control, sensors, day/night battlespace awareness, homeland defense/security, automated testing, optics, laser-based offensive and defensive systems, and networked lethality systems. Planning, execution, management, reporting and collaboration across this vast portfolio demands that technical, managerial and administrative personnel have ready access to a large variety and volume of information including but not limited to technical, programmatic and financial data, software libraries, presentations and reports, audio and video files, technical manuals and drawings, engineering designs and candidates for technology insertion. At the present time there is a need for

applying a suite of solutions to the Warfighter to increase their operational capabilities with USAF A-10 aircraft. Support is required to define, integrate, test, evaluate and execute critical combat and Homeland Defense/Homeland Security mission requirements for USAF A-10 aircraft.

Discussion: A significant portion of the A-10 allocated baseline is the DoDAF 2.0 Architecture. The A-10 avionics architecture was put together over the past several years and is nearly complete. The architecture consists of an operational, a functional and a physical architecture. All of these architectures require annual maintenance and verification to stay current. In addition, gaps and deficiencies have been identified in all three pieces of the architecture. The following tasks are focus on eliminating gaps and deficiencies in the functional and physical architectures.

a) Electrical Interface Control Database

The proposal shall address a plan for obtaining accurate technical data for all (approximately 10,000) electrical signals by signal type and using that data to create an A-10C Electrical Interface Control Document (EICD) based on the A-10C, Suite 7B, weapon system (including the Helmet Mounted Integrated Targeting (HMIT) System, LARS-V12 search and rescue radio, and the second ARC-210 radio).

b) Avionics System Segment Specification (AS3)

The proposal shall address a plan for updating the A-10 AS3 to represent the baseline for Suite 7B. The plan shall include a comprehensive list of all available A-10 Avionics System Segment Specifications (SSS)s and which ones will be included or just referenced in this update and those to be added in a follow on effort.

c) Avionics System Architecture Integration, Updates and Support

The proposal shall review current architecture and requirements products to:

- 1) Support Suite 8 efforts by identifying and developing “consumer” architecture content in conjunction with the 309th Software Maintenance Group. “Consumer” architecture content is defined as those views and products (and the underlying architectural data) that are required to facilitate the most efficient development and implementation of hardware and software OFP candidate solutions as part of the Suite 8 development effort by the 309th Software Maintenance Group. (CDRL A008).
- 2) Generate Suite 9 recommended avionics architecture in compliance with DoD Architecture Framework (DODAF) 2.0.
- 3) Ensure the requirements gap definitions are clearly defined, accurate, complete, and compatible with the baseline data contained in the DOORS Database, CORE (Genesys) databases.

- 4) Identify deficiencies, recommend and implement solutions that support full requirement traceability from A-10 architecture products through to the AS3, A-10 end item specifications, interface documents, and design and development documents.
- 5) Implement A-10 Team Center viewing capability in the A-10 Weapon System Management Environment.

d) Support Equipment Roadmap System Engineering

This task is to accomplish the systems and systems sustaining engineering required to determine the most practical way to correct technical deficiencies revealed in operational service including determining which Support Equipment (SE) candidate deficiencies must be corrected using MSD or other funding. The A-10C SE recommendations shall provide the best response to requested upgraded capabilities considering A-10 weapon system availability, Mission Capable rates, turn time (both CONUS and forward bases), SE performance, reliability/maintainability, operation and sustainment costs, and integration complexity. The Contractor will provide upgrade or replacement alternatives to existing SE used on A-10, and shall consider emerging commercial SE technologies. The Contractor shall provide Integrated Logistics Support (ILS) planning data to ensure the recommended alternative system can be supported in any A-10C operational location or environment, and address support for existing systems as well as expansion and growth flexibility to support future A-10C avionics modifications.

e) Test Engineering and Technical Analysis

The proposal shall:

- 1) Evaluate aircraft deficiencies, assess preferred solutions, and recommend corrective actions to existing deficiencies through support to Operational Utility Evaluations (OUEs)
- 2) Support both ground and flight tests of these preferred solutions at AATC
- 3) Coordinate, evaluate, and report on status of the deficiency reporting and assessments conducted between the 309th Software Maintenance Group/A-10 System Program Office and AATC
- 4) Perform Technical Order (TO) validation for AATC and assist with TO verification.
- 5) Perform system engineering analyses and evaluate the preferred solution for the A-10 upfront controller marking deficiency.

Deliverables for this analysis:

- 1) Engineering designs and drawings

- 2) Baseline drawing Engineering Orders
- 3) Installation drawings
- 4) Test plans and procedures
- 5) Preliminary technical data
- 6) Test report

4.1 SENSOR DEVELOPMENT and PLATFORM IMPLEMENTATION

Perform specific research and prototype processes that develop and demonstrate technologies that directly advance the application of these technologies to specific requirements of the mission areas. This includes research and development in such areas as data links, targeting and communication systems, digitally aided close air support systems, global stores management and communications systems, sensors, and Surveillance and Warning, Cockpit display and GUI technologies, Aircraft structure enhancements.

Specific research areas in Technology Development, Evaluation, and Transition include the following objectives:

4.1.1 Integration of Technology Insertion and Sensor Development for Aircraft for the Air National Guard (ANG) and Air Force Reserve Command (AFRC)

Summary: AATC (ANG AFRC Test Center) seeks proposals establishing prototype Avionics and Night, EO/IR Sensor and Laser-based, Data-Link, and Joint Terminal Attack Control (JTAC) for advancing the capabilities for Air Reserve Component (ARC) airborne systems and personnel through integration, demonstration, test and evaluation, and eventual fielding of technology. The tasks required include Direct Test Support and Analysis, Night Test EO/IR Sensors Expertise, execution of Advanced JTAC Capabilities, Tactics Development, and Operations and Training expertise to include JTAC systems and sub-systems, Data-Links and communications systems.

Background: ARDEC, its Engineering and Enterprise Centers, as well as Competency Directorates, manage a diverse portfolio of projects and technologies. Projects range from technology innovation, integration, evaluation, and assessments through applications, prototype integration, test and evaluation activates, fielding and support across weapon and platform systems, software, training and logistics. Technologies include fire control, sensors, day/night battlespace awareness, homeland defense/security, automated testing, optics, laser-based offensive and defensive systems, and networked lethality systems. Planning, execution, management, reporting and collaboration across this vast portfolio demands that technical, managerial and administrative personnel have ready access to a large variety and volume of information including but not limited to technical, programmatic and financial data, software libraries, presentations and reports, audio and video files, technical manuals and drawings, engineering designs and candidates for technology insertion. At the present time there is a need for applying a suite of solutions to the Warfighter to increase their operational

capabilities with Advanced Avionics, Tactics Development and Sensors Operations and Training Expertise for airborne systems and personnel. Support is required to define, integrate, test, evaluate and execute the critical combat and Homeland Defense/Homeland Security mission requirements for ANG and AFRC forces, and provide those forces training to operate emerging systems.

Discussion: AATC seeks proposals establishing prototype Avionics and Night, EO/IR Sensors and Laser-based, Data-Link, and JTAC for advancing the capabilities for Air Reserve Component (ARC) airborne systems and personnel through integration, demonstration, test and evaluation, and eventual fielding of technology. The tasks required include Direct Test Support and Analysis, and Advanced Avionics, Tactics Development and Sensors Operations and Training Expertise, and Program Management Support. The solution approach should support the early achievement of initial operational capability (IOC) and be designed around a scalable, service oriented architecture facilitating spiral development and ease of evolution, expansion and refinement, with scalability to support an expanding user community, potentially extending across the entire USAF enterprise.

4.1.2 Gordian Cipher

Summary: The Government is seeking proposal to establish a single coordinated specification focusing on all Mission Agnostic Open PCPAD System (MAOPS), sensor, sensor management and Exploitation capabilities required for a Ground Surveillance mission area. This MAOPS architecture will simplify integration of new software components, enables affordable hardware technology refresh and capability upgrade, and reduces the overall weapons system lifecycle cost.

Background: The US Air Force is sponsoring a combined industry, government and Federally Funded Research and Development Center (FFRDC) working group to collaboratively develop a specification for MAOPS reference architecture. The intent of this working group is to position the Air Force to make informed decisions regarding future large mission system acquisitions. Working group assessments pertaining to current and future capabilities of mission system components, software, and the viable implementation of Open System Architecture (OSA) are instrumental in the creation of the required knowledge base.

Central to the GORDIAN CIPHER working group is the establishment of a government-owned Open System Architecture (OSA) specification for a MAOPS framework agnostic to platform and sensor. Future Air Force mission systems will utilize the framework to allow procurement of subsystem components (e.g., services, applications, visualization plug-ins, algorithms) from independent, third-party sources and hardware refresh without major non-recurring engineering. Furthermore, the specification must be relevant across a broad spectrum of mission areas and nodes, but focused primarily upon an aerial ground surveillance

constellation of GMTI sensors (e.g., Joint STARS mission area, Global Hawk Block 40, Dismount Detection Radar), with extension to other mission areas anticipated (e.g., air and ground based air surveillance).

Discussion: The USAF is seeking a MAOPS architecture definition that simplifies integration of new software components, enables affordable hardware technology refresh and capability upgrade, and reduces the overall weapons system lifecycle cost. The scope of this Statement of Objectives (SOO) covers GORDIAN CIPHER Working Group Phase I: *Reference Specification Development*. Technical task description for GORDIAN CIPHER Phase II: *Prototyping & Demonstration* is intended to be a follow-on effort to Phase I that will integrate selected Industry PCPAD components that conform to the Phase I Reference Specification into a prototype implementation for functional demonstration and validation of OSA interfaces. Findings from these prototype demonstration efforts are intended to inform continued development of the MAOPS specification which will, in turn, affect the acquisition decision-making for future PCPAD mission systems.

Part III. PROPOSAL SUBMISSION

5.1. Proposal Content Instructions- General Information

If the offer is based on multiple team members, the proposed SOW document shall include a summary section that states the portion of the effort that each team member will be conducting and a schedule indicating when each team member will participate in the SOW effort.

For this Request for Project Proposals, offerors may submit proposals for projects up to 24 months in duration, provided they specify clearly defined one year (or less), sequential (non-overlapping) project phases to allow for go/no-go decisions on future year efforts/funding. Each phase should specify key tasks (activities) and deliverables (results). The total length/duration of the technical effort is expected to vary by project complexity. The offeror may also provide for an additional 2 months for processing/completion of the final report.

Please be advised that if you take exception to any of the data rights provisions in Article XI: Data Rights of Other Transaction Agreement W15QKN-12-9-1006, for a particular project, you must specifically identify your data rights terms and conditions in that project proposal. This will require negotiations among the parties.

All proposals shall include Fixed Price type payable milestones.

The proposal shall stand on its own merit. Only information provided in the proposal can be used in the evaluation process leading to an award. The proposal should be prepared simply and economically, providing straightforward, concise delineation of capabilities necessary to perform the work being proposed. Each technical proposal shall be accompanied by a detailed cost proposal because cost and technical considerations are reviewed simultaneously.

Proposals containing data that is not to be disclosed to the public for any purpose or used by the Government except for evaluation purposes shall include the following statement on their title pages:

The proposal includes data that shall not be disclosed outside the SOSSEC Consortium Management Firm and the Government and shall not be duplicated, used, or disclosed, in whole or in part, for any purpose other than to evaluate this proposal and negotiate any subsequent award. If, however, an agreement is awarded to this Offeror or quoter as a result of, or in connection with, the submission of these data, the SOSSEC Consortium Management Firm and the Government shall have the right to duplicate, use, or disclose these data to the extent provided in the resulting agreement. If selected for award, the technical proposal can be used by the SOSSEC Consortium Management Firm, the Government, and the Agreements Officer Representatives for purposes of project management and award negotiation. This restriction does not limit the SOSSEC Consortium Management Firm and the Government's right to use the information contained in these data if they are obtained from another source without restriction. The data subject to this restriction are contained on sheets (insert page numbers or otherwise identify the sheets).

Each restricted data sheet should be marked as follows:

Use or disclosure of data contained on this sheet is subject to the restriction on the title page of this proposal or quotation.

The Technical Proposal and Cost Proposal are to be submitted in two separate volumes following the format described in Sections 5.2.3, and Attachment I of this Proposal Guide.

Offerors must submit the following:

- 1 signed Technical Proposal (complete proposal plus the SOW in Word format)
- 1 signed Cost Proposal (Cost Proposal Narrative and Cost Proposal Formats separate)

The technical proposal shall be limited to 20 pages (fixed pitch font of 12 or fewer characters per inch or proportional font point size 10 or larger), single-spaced, single-sided, 21.6 x 27.9 cm (8.5 by 11 inches). Smaller type may be used in figures and tables, but must be clearly legible. Margins on all sides (top, bottom, left, and right) should be at least 2.5 cm (1 inch). The page limitation includes all information, except the:

- o Cover Page
- o Table of Contents
- o List of Figures and Tables
- o Resumes
- o Statement of Work

Pages in excess of this limitation may not be considered. **Offerors are advised that the number of pages should be commensurate with the degree of complexity of the proposed effort. It is expected, and encouraged, that less complex, less expensive proposals will be significantly less than 20 pages in length.**

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Offerors are strongly encouraged to use pictures and graphics to succinctly represent project ideas, organization, etc. Cost proposals have no page limitations; however, Offerors are requested to keep cost proposals to less than 35 pages as a goal and to include page numbers.

DO NOT SUBMIT ANY CLASSIFIED INFORMATION! IF CLASSIFIED INFORMATION IS SUBMITTED IN A PROPOSAL, THE PROPOSAL MAY BE ELIMINATED!

5.2 Detailed Proposal Preparation Instructions

5.2.1 Technical - Statement of Work (See Attachment I for Statement of Work template)

5.2.2 Management, Schedule and Resources:

5.2.2.1

Provide a schedule (e.g. Gantt chart) that clearly shows the plans to perform the program tasks in an orderly, timely manner. Proposed efforts must not exceed 24 months. Provide each major task identified in the SOW as a separate line on the program schedule chart. Each of the tasks should include milestones that relate to specific deliverables during the task. Please ensure that the scheduled work aligns with the associated costs in the cost proposal.

5.2.2.2

Key technical, schedule, and cost risks, their potential impact and mitigation

5.2.2.3

Address the qualifications, capabilities, and experience of the proposed management team and technical personnel who will be assigned to carry out the project. What will their key role and responsibility be?

5.2.2.4

Identify all key personnel. Provide resumes (no longer than 2 pages each) of key personnel (resumes do not count in page count limit). Provide solid evidence of commitment by team members. Letters of commitment may be included for key team member companies. Describe any capabilities the team has that are uniquely supportive of the technology to be pursued.

5.2.2.5

Identify any key facilities, equipment and other resources proposed for the effort. Identified facilities, equipment and resources should be available and relevant for the technical solution being proposed.

5.2.2.6

Provide a summary table that identifies each project participant, their role and key contributions to the proposed Homeland Defense project, and their relative level of effort (as a percentage of total manhours) for the proposed effort. Use the following format to summarize this information:

Project Participant	Role and Key Contribution	Relative Level of Effort
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Organization AAA		50% (for example)
Organization BBB		25%
Organization CCC		15%
.....		10%
		100%

5.2.3 Cost/Price

Cost proposals shall include, at a minimum, the following:

- **Direct Material:** Provide the following detail (supported with quote) on direct materials in excess of \$5000.00: description, quantity needed, unit cost, proposed vendors and basis for cost. For subcontracts in excess of \$25,000, the estimated subcontract cost elements and proposed vendors must be detailed (supported with quote) in an exhibit. Same detail is required for Interdivisional Transfers as is needed on a direct purchase or subcontract.
- **Direct Labor:** Provide hours and dollars by job class or category and specify if rates are federally approved. If not federally approved, provide detail of method used for computing average or standard hourly rates.
- **Indirect Costs:** Attach copy of government approval of indirect cost rates. If government approved rates are not proposed, provide the following items to justify each rate: organization charts; indirect costs, by account (pool), for each proposed rate; distribution base used for each proposed rate; actual incurred rates for the prior three years, including actual base and pool amounts.
- **Project Related Travel:** Explain nature of any proposed travel costs; estimated number of trips required; destinations; mode and cost of transportation; and number of man-days per trip.
- **Consultants:** Justify the specific technical need for a consultant. Provide a vitae of academic and experience qualifications. Detail number of days required and the rate/day. Document where/when consultant has received proposed rate in performing similar services for others.
- **Other Direct Costs:** Justify estimated other direct costs by detail including: item description; quantity; cost per unit; description of intended use/purpose; vendor; basis for vendor selection, etc.
- **General & Administrative Costs:** Provide only approved government G&A rates on this line. Attach copy of government rate approval to this proposal. If no government approved rates exist, provide a list of all related costs.
- **CAS 414:** Provide approved CAS 414 rates, if applicable
- **Royalties or License Fees:** If a royalty/license fee is being paid to a third party that it is necessary and is allocated to this project, detail the royalty/license fee cost and basis for allocation. If the participant's own technology/intellectual property is being valued and proposed as cost sharing/in-kind, provide complete detail on the valuation methodology. All proprietary/intellectual property costs and its valuation methodology will be scrutinized and approved prior to inclusion as cost share in the final project/contract price.
- **Fixed Fee/Profit:**

- **Cost Share:** Provide detail on any proposed Cost Sharing being made for use on the Project and describe how it is applicable to the Statement of Work.
- **CASH into Project:** Provide detail on any proposed cash contribution being made for use on the Project.
- **In-Kind Contributions:** Provide detail on any proposed in-kind contributions being made for use on this project.

5.2.4 Nontraditional Defense Contractor and Cost Share Discussion

As a result of the Homeland Defense Other Transaction Agreement (OTA) with the Government, the portfolio of Projects awarded under the Homeland Defense program must contain sufficient use of nontraditional defense contractors. Therefore, to the maximum extent possible, Offerors proposing a Homeland Defense Project should be a nontraditional defense contractor; their proposal should have at least one nontraditional defense contractor participating to a significant extent OR Offerors should provide at least one third of the total Project cost as cost share. The use of nontraditional defense contractors is encouraged and preferred to cost share and will be evaluated more favorably. Proposals should address the following:

- Demonstrate how nontraditional defense contractor participation contributes to the proposed technical solution AND provide signed Warranties and Representations with the Cost Proposal per section 5.2.4.2.
- Discuss relevance of the proposed cost share to the statement of work proposed
- If a proposal does not include nontraditional defense contractor participation or cost share, the offeror must explain why neither are proposed. Additionally, per the Technical And Cost Evaluation Factors, any proposal that does not include nontraditional defense contractor participation to a significant extent; or does not propose significant acceptable cost sharing (less than one-third) will receive a rating of poor for Technical Benefit Sub Factor 3.

Definitions and specific requirements for nontraditional defense contractors and cost share are contained in greater detail below.

5.2.4.1 Nontraditional Defense Contractor Definition

A nontraditional defense contractor is a business unit that has not, for a period of **at least one year prior to the issue date of the Homeland Defense Technology Agreement, Request for Project Proposals**, entered into or performed on: (a) any procurement contract that is subject to full coverage under the cost accounting standards or (b) any FAR based procurement contract in excess of \$500,000.

A nontraditional defense contractors can be at the prime level, team members, subcontractors, lower tier vendors, or "intra-company" business units; provided the business unit makes a significant contribution to the prototype project (i.e., is a key participant). Examples of what might be considered a significant contribution includes supplying new key technology or products, accomplishing a significant amount of the effort, or in some other way causing a material reduction in the cost or schedule or increase in the performance. The Consortium Management Firm will follow the specific

guidance from OSD concerning the use of nontraditional defense contractors. Nontraditional defense contractors will be required to provide a DUNS number.

5.2.4.2 Nontraditional Defense Contractor Requirements

If the offer asserts either (1) it is a nontraditional defense contractor or (2) proposes a nontraditional defense contractor as a team member/subcontractor, the Offeror shall submit Warranties and Representations (Attachment III) for each nontraditional contractor, specifying the critical technologies being offered and/or the significant extent of participation of the nontraditional defense contractor. The nontraditional contractor can be an individual so long as they have a DUNS and meets the requirements in the in Warranties and Representations.

5.2.4.3 Cost Share Definition

Cost sharing is defined as the resources expended by the award recipients on the proposed project SOW and subject to the direction of the project management. Cost sharing includes any costs a reasonable person would incur (necessary to) carrying out the project SOW, but does not involve funds directly to USG. There are two types of cost sharing as follows: (1) **Cash**: Outlays of funds to perform the Homeland Defense project; and (2) **In-Kind**: Reasonable value of equipment, materials or other property used in performance of the Homeland Defense project.

5.2.4.4 Cost Share Explanation

The Cost/Price section narrative for Cost Share should explain in detail the sources of cash and amounts to be used for cost sharing requirements and the specific in-kind contributions proposed, their value in monetary terms, and the methods by which their values were derived. In addition, the Cost/Price narrative should describe how the proposed cost share is applicable to the proposed statement of work.

5.2.4.5 Acceptable Cost Share Sources

Cost sharing includes any costs a reasonable person would incur to carry out (necessary to) Homeland Defense Project statements of work not directly paid for by the Government. There are two types of cost sharing: (1) **Cash**: Outlays of funds to perform the Homeland Defense Project. Cash includes labor, materials, new equipment, and relevant subcontractor efforts. Sources include new R&D funds, profit or fee from another contract, overhead or capital equipment expense pool. New R&D funds offered to be spent on the Homeland Defense Project statement of work and subject to the direction of the project management may utilized as cost share. (2) **In-Kind**: Reasonable value of in-place equipment, materials or other property used in performance of the Homeland Defense Project. All cash or in-kind cost sharing availability must be clearly and convincingly demonstrated by the Offeror. The Offeror will be required to provide financial reporting with appropriate visibility into expenditures of Government funds vs. private funds. Parallel research that might be related to the Homeland Defense Project, but will not be part of the statement of work or subject to the direction of the project management will not be considered for cost sharing. All costs, fees, profits, G&A, bid and proposal costs, or intellectual property value incurred prior to the Homeland Defense Project award will not be accepted.

5.2.4.6 Unacceptable Cost Share Sources

- a. Sunk costs or costs incurred before the start of the proposed project
- b. Foregone fees or profits
- c. Foregone G&A or cost of money applied to a base of R&D
- d. Bid and proposal costs
- e. Value claimed for intellectual property or prior research
- f. Parallel research or investment, i.e., research or other investments that might be related to the proposed project but which will not be part of the SOW. Typically these activities will be undertaken regardless of whether the proposed project proceeds.
- g. Off-Budget Resources, i.e., resources that will not be risked by the Offeror on the SOW, will not be considered when evaluating cost share.

All cash or in-kind cost sharing availability must be clearly and convincingly demonstrated by the Offeror. The Offeror will be required to provide financial reporting with appropriate visibility into expenditures by Homeland Defense vs. private funds.

Part IV: EVALUATION FACTORS FOR AWARD

The Basis for Selection for proposals submitted in response to a category area objective will be an integrated assessment of the results of a technical benefit evaluation of the proposal and a cost evaluation. The selection will be based upon the following two evaluation factors:

Technical Benefit
Cost Assessment

Technical benefit is more important than Cost. The Technical Benefit Merit Rating will be a subjective adjectival rating and cost will be a narrative rating. If applicable, the Government will weigh any increase in the Technical Benefit Merit Rating against any additional cost to determine if the parity of the relationship warrants the paying of additional cost for higher Merit Ratings.

6.1 Technical Benefit Evaluation Sub Factors

The overall Technical Benefit Merit Rating will be based on an integrated assessment of the below Technical Benefit Evaluation Sub Factors. Each Technical Benefit Evaluation Sub Factor will receive an adjectival rating of Excellent, Good and Poor. Based on these adjectival ratings, an overall Technical Benefit Factor Rating will be determined using an adjectival rating as follows: Excellent, Good and Poor. The Technical Benefit Evaluation Sub Factors are listed in decreasing order of importance.

1. Ability to address a specific technology gap objective area
2. Management, Schedule and Resources
3. Nontraditional Defense Contractor Participation and Cost Sharing

6.1.2 Technical Benefit Sub Factor 1: Ability to address specific technology objective area.

Ratings will be based on our assessment of the following:

- Likelihood of the proposed solution to successfully achieve the requirements of the specific technology objective research area of this RPP
- Soundness of the technical approach, including complete and clear processes to execute the effort
- Demonstrated ability of the proposed effort to advance the technology maturity level
- Extent proposed effort is a technological breakthrough solution that is an innovative, novel approach, which is a brand new technology that is currently not readily available.
- Ability to demonstrate projected performance improvements
- Extent to which the proposal offers a joint service solution

The following adjectival merit ratings will be used:

Evaluation	Merit Rating
Excellent understanding of the objectives and approach and has a high probability of achieving all or most of the requirements of the objective	Excellent
Proposal demonstrates good understanding of the objectives and approach and has a good probability of achieving most of the requirements of the objective	Good
Proposal demonstrates little or no understanding of objectives and has a low probability of achieving the objective	Poor

6.1.3 Technical Benefit Sub Factor 2: Management, Schedule and Resources

Ratings will be based on our assessment of the following:

- Management plan with appropriate personnel identified that demonstrates an ability to perform the program tasks in an orderly, timely manner.
- Detailed schedule with cost risks, and potential mitigation strategies identified
- Facilities and equipment sufficiently identified and available to execute the effort as proposed

The following adjectival merit rating will be used:

Evaluation	Merit Rating
Proposal demonstrates an excellent management plan, schedule and resources	Excellent

to complete milestones and execute objectives in a timely manner	
Proposal demonstrates an acceptable management plan schedule and resources to complete milestones and execute objectives in a timely manner	Good
Proposal demonstrates an unrealistic management plan, schedule and resources to complete milestones and execute objectives in a timely manner	Poor

6.1.4 Technical Benefit Sub Factor 3: Non-Traditional Defense Contractor Participation and Cost Sharing

Ratings will be based on our assessment of the following:

- Use of Nontraditional Defense Contractors (Warranties and Representations must be included per Section 5.2.4.2)
- Proposed Acceptable Cost Sharing

The following merit ratings will be used:

Evaluation	Merit Rating
Offer is a non-traditional defense contractor and/or proposes greater than one-third acceptable cost share	Excellent
Proposal includes non-traditional defense contractor participation to a significant extent or proposes a minimum of one-third acceptable cost share	Good
Proposal does not include nontraditional defense contractor participation to a significant extent; or does not propose significant acceptable cost sharing (less than one-third)	Poor

6.1.5 Technical Benefit Factor Rating

The overall Technical Benefit rating reflects the government's confidence in each Offeror's ability, as demonstrated in its proposal, to meet the stated objective. This evaluative rating shall be conducted at the factor level during the Government's evaluation. The ratings shall be supported by narrative justification. The ratings to be used by the Government are listed below. A proposal need not have all of the characteristics of a given rating in order to achieve that overall characterization.

Excellent – The proposal demonstrates an excellent understanding of requirements and has exceptional strengths that will significantly benefit the Government. The proposed technical solution is excellent and exceeds the requirements needed to successfully complete the effort.

Good – The proposal demonstrates a good understanding of requirements and has one or more significant strengths that will benefit the Government. The proposed technical solution is good and satisfies the requirements needed to successfully complete the effort.

Poor – The proposal demonstrates a poor or no understanding of requirements and offers a less than minimally acceptable solution. The proposed technical solution is poor and does not adequately address the requirements needed to successfully complete the effort

A proposal that receives an overall Technical Benefit Factor Rating of Poor will be rejected and not placed in the Basket.

6.2 Cost Assessment:

The Cost will receive a narrative assessment. A cost analysis of the Offeror's Research Area proposal will be performed by the Consortium Management Firm. The cost proposal will be evaluated for completeness, reasonableness, and realism of the proposed costs. The Consortium Management Firm or the Government through the Consortium Management Firm may make adjustments to the cost of the total proposed effort as deemed necessary to reflect what the effort should cost. These adjustments shall consider the task undertaken and technical approach proposed. These adjustments may include upward or downward adjustments to proposed labor hours, labor rates, quantity of materials, price of materials, overhead rates and G&A, etc.

The objective of this area of evaluation is to assess the ability of the Offeror to execute the proposed Homeland Defense technology objective with the financial resources proposed and to achieve the project objectives. The Government Technical Evaluators will assess cost realism as part of the source selection process. If a proposal is selected for award and has available funding, the SOSSEC Consortium Management Firm will review the original cost proposal and may request an updated proposal or additional information / clarification as necessary. The SOSSEC Consortium Management Firm will assess the reasonableness and completeness of the cost estimates and then provide a formal assessment to the Government. The Government Acquisition Center will review this assessment and make the final determination that the negotiated project value is fair and reasonable.

As part of its cost analysis, the factors of completeness, reasonableness, and realism will be reviewed as discussed below.

6.2.1 Completeness

The following will be evaluated:

- The degree to which the Offerors have provided all cost information requested in the Homeland Defense Technology Agreement, Request for Project Proposals. Please note that rate and pricing information is required to properly perform the cost analysis of your proposal. If your company is unwilling to provide this information in a timely manner, your proposal will be lacking information that is required to properly evaluate the proposal and the proposal cannot be selected for award.
- How well cost data is reconcilable.
- Substantiation of cost (i.e., supporting data and estimating rationale) for all elements.

6.2.2 Reasonableness

A cost estimate will be considered "reasonable" based upon subjective judgments. To be considered reasonable, the Offeror's cost estimate should be developed from applicable historic cost data; fully supportable with assumptions, learning curves, equations, estimating relationships, etc.; clearly stated; valid; and suitable. The Offeror should show that sound, rational judgment was used in deriving and applying cost methodologies. Appropriate narrative

explanation and justification should be provided for critical cost elements. The overall estimate should be presented in a coherent, organized and systematic manner.

6.2.3 Realism

Estimates are “realistic” when they are neither excessive nor insufficient for the effort to be accomplished. Estimates must also be realistic for each task of the proposed project when compared to the total proposed cost. Determination will be made by directly comparing proposed costs with cost estimating relationships, comparable current and historical data, evaluator experience, available estimates, etc. Proposed estimates will be compared with the corresponding technical proposals for consistency.

Part V: BASIS FOR AWARD

Multiple awards are intended to be made based on the best overall proposals that represent the best value to the Government, with appropriate consideration given to the following evaluation factors: Technical, Cost/Price. Project Proposals not initially awarded will be placed in an electronic “basket” file and retained for the life of the OTA. It is the intent of the Government to select the highest ranked proposals; however, as Government customer funding is received, the Government reserves the right to select the submitted proposal(s) that best match the customer’s requirements, and may be awarded, out of order and out of cycle. Not all Proposals deemed selectable will be funded. Decisions to fund will be based on funds available. Project Proposals may be considered, for funding, for a period of up to 3 years or the life of the OTA, whichever is sooner, from the closing date for submission of proposals. At the sole discretion of the Government, additional Homeland Defense Technology Agreement, Requests for Project Proposals may be issued outside the annual cycle delineated in the OTA. These additional requests will be confined to specific technology objectives not listed in the current RPP and in direct response to exigent Government technology gaps that are subsequently identified.

For the purposes of the proposal selection, all proposals will be ranked as follows:

- (1) Most highly rated proposals that are most important to ARDEC’s Homeland Defense program suitable for immediate funding
- (2) Highly rated proposals that are important to ARDEC’s Homeland Defense research objectives but are not suitable for immediate funding. These proposals will remain viable for award until such time that they expire.
- (3) Proposals not suitable for award due to low evaluation ratings or lack of importance to RDEC’s Homeland Defense program.

ATTACHMENT I: STATEMENT OF WORK TEMPLATE

Submitted under Homeland Defense Technology Agreement W15QKN-12-9-1006-Request for Project Proposals (RPP 2012-1)

For

**Other Transaction Agreement # W15QKN-12-9-1006-RPP 2012-1
Research Area Project Agreement _____ (Number to be determined at award.)**

(Organization Name)

(Proposed Project Title)

1.0 Purpose *(to be initially provided by the offeror at the time of submission. Submitted information is subject to change through negotiation if the Government selects the proposal for fundings.)*

- "The purpose of this project is to" This should be a *short, broad general statement* of what you are to do. (Be specific in the Objectives subparagraph.) This subparagraph is where the proposal explains the value of the effort to the warfighter. Show the connection between the technology and the benefit to the DoD, often this is best accomplished by describing what military tasks are enabled by the utilization of the technology and how performing that task with the new technology is an improvement over how the task is performed today by DoD.

2.0 Introduction/Background *(To be initially provided by the Offeror at the time of proposal submission. Submitted information is subject to change through negotiation if the Government selects the proposal for funding.)*

- Present a *concise* but complete history of the problem or whatever generated the task you are undertaking.

3.0 Scope/Project Objective *(To be initially provided by the Offeror at the time of proposal submission. Submitted information is subject to change through negotiation if the Government selects the proposal for funding.)*

- This subparagraph should define in concise terms exactly how much you are going to develop, test, demonstrate, or do. The main purpose of this paragraph is to define, limit or bound the project. It is not intended to explain the concept of how you are going to accomplish the task; that will be accomplished later in the proposal. *Sometimes it is equally important to define here what you are NOT going to do.*

3.1 Goals *(To be initially provided by the Offeror at the time of proposal submission. Submitted information is subject to change through negotiation if the Government selects the proposal for funding.)*

- Convey in concise terms the outcome of the overall effort and show clear linkage to project purpose

3.2 Objective *(To be initially provided by the Offeror at the time of proposal submission. Submitted information is subject to change through negotiation if the Government selects the proposal for funding.)*

- Clearly state in specific, measurable terms each task you intend to accomplish to demonstrate goal was achieved.

3.3 Technical Solution *(To be initially provided by the Offeror at the time of proposal submission. Submitted information is subject to change through negotiation if the Government selects the proposal for funding.)*

- Describe the proposed technology advancement and the attributes that lead to the desired maturity/readiness level

4.0 Applicable Documents *(To be determined by the Government based on negotiation of Paragraphs 1.0, 2.0, and 3.0)* In the event requirements of these documents must be included in the SOW excerpts only should be used and should be made into either a clear task statement or a clear reference statement for guidance only and not for contract compliance.

5.0 Deliverables *(To be initially provided by the Offeror at the time of proposal submission. Submitted information is subject to change through negotiation if the Government selects the proposal for funding.)*

- Describe the tangible items will result from conduct of this effort that will be provided to the DoD, and indicate delivery date

6.0 Methodology *(To be initially provided by the Offeror at the time of proposal submission. Submitted information is subject to change through negotiation if the Government selects the proposal for funding.)*

- Describe what activities will occur in developing the technology (analysis, software coding, hardware integration, hardware/software integration, testing, etc.

7.0 Schedule of Events *(To be initially provided by the Offeror at the time of proposal submission. Submitted information is subject to change through negotiation if the Government selects the proposal for funding.)*

- Depict tasks with start and finish dates that must be completed to achieve each objective and prepare deliverable.
- A major milestone type (Gantt type chart) schedule may be included or a more detailed schedule may be included in the proposal

7.1 Integrated Baseline *(To be initially provided by the Offeror at the time of proposal submission. Submitted information is subject to change through negotiation if the Government **selects the proposal for funding.**)*

- Indicate the funding estimated to complete each task identified within the projected schedule
- The Integrated baseline provides a depiction of the significant tasks that must be conducted to complete the project, how long each of the tasks will take to complete, the timing of the tasks relative to each other, and the estimated required cost for completion of each task. The Integrated baseline should provide a projection of expected work to be performed and associated cost at any point in time along the schedule. This will be used to track project performance against budget and schedule

8.0 Roles and Responsibilities *(To be initially provided by the Offeror at the time of proposal submission. Submitted information is subject to change through negotiation if the Government selects the proposal for funding.)*

- Identify Key personnel, organizations, and roles associated with the project.
- Explain the roles of the major organizational elements involved in the project. It is important to recognize all stakeholders in the event and their role, even if it is a passive role (such as funding the event).
- Responsibility for providing personnel, equipment, facilities, or for specific functions to be performed should be described here.

9.0 Risk Management *(To be initially provided by the Offeror at the time of proposal submission. Submitted information is subject to change through negotiation if the Government selects the proposal for funding.)*

- Describe the risks associated with the project and the proposed means to mitigate those risks.
- Describe risk in terms of high, medium, low risk of an event occurring that results in a high, medium, or low consequence as appropriate.
- Indicate actions that can be taken to prevent the events from occurring, or actions that can be taken to “get well” if the event occurs.

10.0 Shipping Provisions *(The following information, if applicable to the negotiated SOW, to be initially provided by the Offeror at the time of proposal submission and will be finalized by the Government and the based on negotiation of Paragraphs 1.0 – 10.0)*

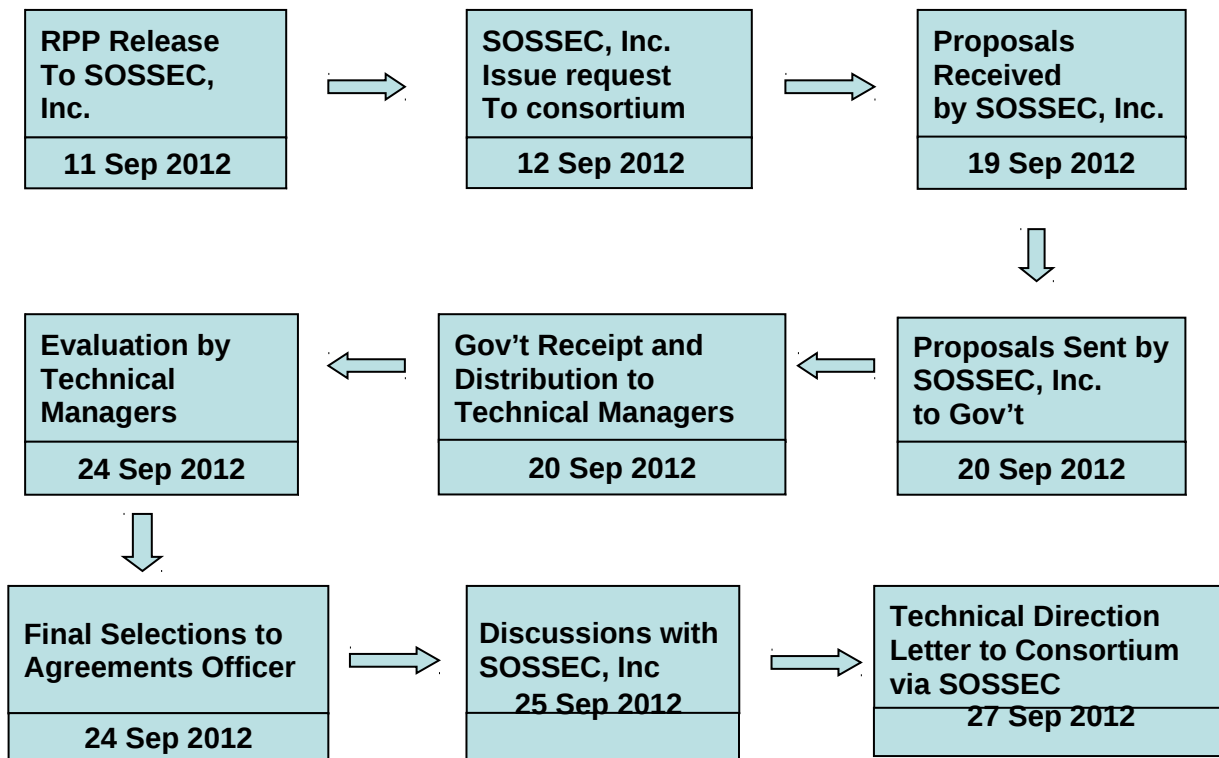
- The shipping address is: *(To be determined by the Government based on finalized Paragraphs 1.0-8.0)*

11.0 Data and Reporting *(The following information, if applicable to the negotiated SOW, will be provided by the Government based on negotiation of Paragraphs 1.0 – 11.0)*

- Quarterly Reports – The Recipient shall prepare a Quarterly Report which will include a Technical Status Report and a Business Status Report in accordance with the terms and conditions of the Homeland Defense Base Agreement.

- Annual Technical Report – The Recipient shall prepare an Annual Technical Report for the Project Agreement whose periods of performances are greater than one year in accordance with the terms and conditions of the Homeland Defense Base Agreement.
- Final Technical Report – At the completion of the Project Agreement, the Recipient will submit a Final Technical Report, which will provide a comprehensive, cumulative, and substantive summary of the progress and significant accomplishments achieved during the total period of the project agreement effort in accordance with the terms and conditions of the Homeland Defense Base Agreement. A Draft Final Technical Report will need to be completed and reviewed by the Consortium Management Firm and the Government before the Final Technical Report can be submitted
- Final Business Status Report – At the completion of the Project Agreement, the Project Agreement Recipient will submit a Final Business Status Report, which will provide summarized details of the resource status of the Homeland Defense Project Agreement, in accordance with the terms and conditions of the Homeland Defense Base Agreement.
- The recipient shall prepare an Accident/Incident report IAW DI-SAFT-81563, for each major safety incident that occurs.
- Notification of Processing and Testing: The recipient shall provide notification of processing and testing to allow the government to plan for witnessing and observing selected operations at the recipient's or sub recipient's facility.

ATTACHMENT II: RPP 2012-1 PROCESS CHART TIMELINE



ATTACHMENT III: WARRANTIES AND REPRESENTATIONS FOR NONTRADITIONAL DEFENSE CONTRACTORS

Warranties and Representations **Authority to use Section 845 Other Transaction Agreement**

In accordance with the provisions of Public Law 106-398, Section 803, which governs the authority to use a Section 845 Other Transaction Agreements to conduct the prototype research and development projects (*insert organization*) hereby provides the following Warranties and Representations:

For the purposes of assessing an organization's nontraditional status under this Other Transaction Agreement, the definition of a nontraditional defense contractor in Section 1 below only applies if the organization was acting as the prime contractor.

1. Nontraditional Defense Contractor Defined – A nontraditional defense contractor is a business unit that has not, for a period of **at least one year prior to the issue date of the Homeland Defense Technology Agreement, Request for Project Proposals**, entered into or performed on:

(a) *any contract that is subject to full coverage under the cost accounting standards prescribed pursuant to section 26 of the Office of Federal Procurement Policy Act (41 U.S.C. 422) and the regulations implementing such section; or*

(b) *any other contract in excess of \$500,000 to carry out prototype projects or to perform basic, applied, or advanced research projects for a Federal agency, that is subject to the Federal Acquisition Regulation.*

Note: these nontraditional defense contractors can be at the prime level, team members, subcontractors, lower tier vendors, or "intra-company" business units; provided the business unit makes a significant contribution to the prototype project (i.e., is a key participant). Examples of what might be considered a significant contribution includes supplying new key technology or products, accomplishing a significant amount of the effort, or in some other way causing a material reduction in the cost or schedule or increase in the performance.

2. Prime Contractor. Based on the foregoing definition of a nontraditional defense contractor, the Prime Contractor (*insert Organization Name*) for the proposed project ☐ is a traditional defense contractor ☐ is a nontraditional defense contractor. (*check one*)

3. Prime Contractor with Nontraditional Defense Contractor. Based on the foregoing definition of a nontraditional defense contractor, (*insert Organization Name*) is a nontraditional defense contractor and will provide a critical contribution to the Prime Contractor for the proposed prototype project.

(a) Please provide nontraditional defense contractor's information below:

Nontraditional name: _____

DUNS No.: _____

Address: _____

Point(s) of Contact Name(s): _____

Contact Information: _____

(b) Please list key technologies, products and/or processes that the nontraditional defense contractor will provide that are critical to the successful completion of the proposed prototype project.

Signature of authorized representative of proposing Prime Contractor

Date

